

Remarks

- 1) Applicant thanks the Examiner for his office action and hopes that this response will further the understanding of applicant's invention.
- 2) Applicant thanks the Examiner for the interview conducted on April 11 2006, and in commenting on the interview report provided by the Examiner, would like to point out that there is no statutory requirement to include all the features disclosed in the applicant's specification. However after consideration applicant incorporated certain features from paragraph 54 in the claims.
- 3) Claims 16-35 are pending in the application. Claims 1-15 are being cancelled, and claims 24-35 are added, congruent with this amendment.
- 4) This amendment is filed together with a Request for Continued Examination under 37 C.F.R. §114.
- 5) The Office rejected all pending claims under 35 U.S.C. 102 as being anticipated by Matsumoto et al. US patent 6,172,065.
- 6) In response to the arguments raised in the previous amendment, the Office rejected the claims as not distinguishing over the Matsumoto reference and provided arguments that the claims did not specify reasons to cause the programmable logic to controller to form a query message. The claims as amended above clearly show that the query is initiated automatically in response to a process related event, sensed by the sensor which is coupled to the programmable controller.
- 7) Applicant further points out that the camera is not active all the time like Matsumoto's TV camera. Further, the sensor is not coupled to the camera as in Matsumoto but to the controller. When a process related event happens, it is detected by the sensor and reported to the programmable controller, which in turn initiates the taking of a still image by the camera and the execution of an image processing calculation task on that image.

- 8) Applicant respectfully submits that in light of the amendment and the comments provided herein and in previous communications, clearly distinguish the claims over the cited art.
- 9) Applicant further submits that the “abnormalities” in Matsumoto correspond to the detailed information, control information to the query message, or the resolution and the number of frames to parametric values. The applicant believes that a skilled artisan would disagree with the Examiner. The following arguments are being presented to further clarify applicant’s position.
- 10) Contrary to Matsumoto, the camera used in the invention is not a TV camera but a camera capable of taking single shots, i.e. still images. In other words, the camera, when activated, takes only one image of an object. By way of example, machine vision systems are widely used in industry for taking pictures of objects moving in a production line. One or more still pictures of each single object are taken, depending on the nature of the object. After a single picture is taken it is processed, which means that the calculations are performed in accordance with the image-processing task received in the query message. The results are sent in the reply message to the process control unit.
- 11) Secondly, the TV camera in Matsumoto’s system produces a continuous video signal which is first encoded to a specific resolution and frames and then sent via the communication line. Thus, a great amount of data is transmitted as a stream. In contrast, in the present invention only a single value or a value set is transmitted. In other words, only a few bits located in a reply message need be sent to the process control program.
- 12) Thirdly, the claim as amended requires at least one query point in the program execution, that will form a program-point specific query message, and that the query point is reached automatically during program execution, responsive to a process related event, such as an event detected by the sensor. Thus the amended claim provides the reasons causing the logic controller to form the query message, and that the query is preprogrammed, and the reason is automatic rather than the manual intervention required by Matsumoto.

13) As to claim 16, applicant amended the claim to more specifically show that the smart camera takes at least one photograph in accordance with the detection of an event by the sensor.

14) In light of the amendments to the claims and the comments made above, applicant believes that the rejections reflected in the Office Action mailed to applicant on January 17, 2006 have been overcome. Therefore applicant respectfully requests that the rejection be reconsidered and withdrawn, and that the application will be forwarded to allowance.

15) Should the Examiner find any deficiency in this amendment or in the application, or should the Examiner believe for any reason, that a conversation with applicant's agent may further the allowance and issuance of this application, the Examiner is kindly requested to contact Shalom Wertsberger at telephone (207) 799-9733.

Respectfully submitted

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